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**CERTIFIED MAIL – RETURN RECEIPT REQUESTED**

January ??, 2017

Jesse Toepfer, Closure Manager  
Homestake Mining Company of California  
P.O. Box 98  
Grants, NM 87020

**RE: Homestake Mining Company of California (HMC), DP-200, New Mexico Environment Department (NMED), Mining Environmental Compliance Section (MECS), Response to Request to Begin Post-Closure Monitoring of Western Portion of North-Offsite Area (Condition 58)**

Dear Mr. Toepfer:

NMED-MECS has exchanged the following correspondence with Homestake Mining Company of California relating to the above-referenced Condition 58 of DP-200.

- HMC, January 16, 2015; “Post –closure groundwater monitoring plan IAW Condition 58 of DP-200, and Proposed location for final deposition of sediments and debris from groundwater treatment activities IAW Condition 22 of DP-200”
- NMED, March 2, 2015; “Homestake Mining Company of California/Discharge Permit DP-200 - New Mexico Environment Department Comments on ‘Post –closure groundwater monitoring plan IAW Condition 58 of DP-200, and Proposed location for final deposition of sediments and debris from groundwater treatment activities IAW Condition 22 of DP-200’ (January 16, 2015)”
- HMC, August 11, 2015; “Homestake’s responses to NMED’s comments received 2 March 2015 pertaining to Homestake’s ‘Post –closure groundwater monitoring plan IAW Condition 58 of DP-200, and Proposed location for final deposition of sediments and debris from groundwater treatment activities IAW Condition 22 of DP-200’ (January 16, 2015)”

- NMED, September 1 2015; “Homestake Mining Company of California/Discharge Permit DP-200 – Conditional approvals of final repository designation for contaminated sediments (DP-200/Condition 22), and post-closure ground water monitoring plan (DP-200/Condition 58)
- HMC, December 8, 2015; Request to begin post-closure monitoring of western portion of north-offsite area.

On December 8 2015, MECS received the *Request to Begin Post-Closure Monitoring of the Western Portion of the North-Offsite Area* (request). The request has been reviewed and MECS has the following comments.

1. Based on Figure 4.1-2 of HMC’s ‘2015 Annual Monitoring Report’ dated March 31, 2016, the base elevation of the alluvial aquifer within the western portion of the North off-site area demonstrates a westerly dipping trend from the confluence of the San Mateo and the Rio San Jose alluviums which then trends southeasterly within the main channel of the Rio San Jose. As stated in the above listed correspondence from MECS to HMC on March 2, 2015 (DP-200, Condition 58, Comment 2), ‘The [post-closure monitoring] plan should include monitoring of, and analytical data from, a sufficient number and areal distribution of wells in each impacted aquifer that will clearly demonstrate compliance with applicable ground water quality standards for eight consecutive quarters.’ Additional, ground water data submitted within the December 8, 2015 request shows ground water data that are two to nine years old. Due to the trends of the underlying alluvial base, the insufficient number of monitoring wells proposed along the western, southern and eastern sides of the historical ground water impacted area, and the age of the submitted ground water data, MECS is requiring (requesting???) that eight additional monitoring wells be added to the post-closure monitoring program. The addition of these monitoring wells within and adjacent to the historical ground water impacted area will provide up-to-date data to verify that ground water in the historical impacted area is indeed compliant with site-specific ground water standards. Listed below are the monitoring wells to be sampled for eight consecutive quarters which are in addition to the proposed monitoring wells:
  - a. MECS is requiring (requesting???) that the following monitoring wells (648, 683, 687, 896, and 935) be added to the list of monitoring wells to be sampled for eight consecutive quarters to demonstrate compliance with applicable ground water quality standards along the western and southern edge of the historical ground water impacted area.
  - b. MECS is requiring (requesting???) that the following monitoring wells (531, 684 and 685) be added to the list of monitoring wells to be sampled for eight consecutive quarters to demonstrate compliance with applicable ground water quality standards along the eastern edge of the historical ground water impacted area.

2. Figure 4.1-1 of HMC's '2015 Annual Monitoring Report' dated March 31, 2016, shows the alluvial well locations for the Homestake Mill and adjacent properties. The map legend designates the 'use' of each well and its location. Figure 1 submitted in this request displays the historical extent of the ground water contamination but does not show all wells within or adjacent to this area as shown in Figure 4.1-1. Within 90 days of the date of this letter, resubmit an updated figure displaying the historical extent of contamination for the western portion of the North-offsite Area as well as the locations of all wells within and adjacent to this area of contamination along with a legend designating the 'use' of each well. If a well is currently not actively being used for remedial efforts it should be noted as such in the legend. The figure shall be sized to at least 11" x 17" to facilitate MECS's evaluation and monitoring well identification shall be legible.
3. Within 90 days of the date of this letter, submit an updated Figure 4.1-1 of HMC's '2015 Annual Monitoring Report' dated March 31, 2016. The base elevations of the alluvial aquifer for several monitoring wells on this figure do not match elevations stated in Tables 2 and 3 of HMC's December 8, 2015 request. Additionally, the contour lines displayed on Figure 4.1-2 of the 2015 Annual Monitoring Report are drawn incorrectly and need to be redrawn after base elevations, stated above, are recalculated. Base elevations and contour lines shall be drawn by using all alluvial wells for the Homestake Mill and adjacent properties. The figure(s) shall be sized to at least 11" x 17" to facilitate MECS's evaluation and monitoring well identification and contour elevation lines shall be legible.
4. The well data submitted in Table 2 of the request, states a saturated thickness of 88.1' with a depth to water measurement of 49.6' for Well 996. However, Table 2-4 of HMC's 'Supplemental Information on Remediation Strategy' states a saturated thickness of 34.0' with a depth to water measurement of 103.73'. Within 90 days of the date of this letter, review well data submitted in Tables 2 and 3 and submit corrected tables. Also see Comment 3 listed above.
5. Within 90 days of the date of this letter, submit historical along with the most recent ground water quality data for all alluvial wells within and adjacent to the historical ground water impacted area of the western portion of the North off-site area being proposed for post-closure monitoring.
6. Within 90 days of the date of this letter, submit an updated potentiometric surface map utilizing the most recent water level data from all wells within and adjacent to the historical ground water impacted area of the western portion of the North off-site area.
7. Within 90 days of the date of this letter, submit recent ground water quality data and well completion data for wells 636, 637, 686, 936 and 997 located along County Road 63 in the southern portion of Section 20 and in Sections 29 and 32. Information will be evaluated for contaminants of concern within the northern extent of the Rio San Jose Alluvium.

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3 8. Within 90 days of the date of this letter, HMC shall state the contaminants of concern to  
4 be analyzed for the HMC proposed monitoring wells and the eight additional monitoring  
5 wells being added to the post-closure monitoring program (Comment 1). Post-closure  
6 monitoring shall, at a minimum, analyze for all contaminants of concern for which Site  
7 background ground water quality standards have been established (see DP-200, Table 1).  
8  
9 9. Ground water quality data from the above specified wells shall be submitted to MECS  
10 within the semi-annual report due no later than July 31<sup>st</sup> and January 30<sup>th</sup>. In addition,  
11 ground water data shall be submitted within the annual monitoring report due no later  
12 than March 31<sup>st</sup>.  
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14 If you have any questions, please contact Bill Pearson at (505) 827-0602 or by e-mail at  
15 [william.pearson@state.nm.us](mailto:william.pearson@state.nm.us)  
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17 Sincerely,  
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22 Kurt Vollbrecht, Program Manager  
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24 Ground Water Quality Bureau  
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